

## Contents of *Aquaculture* Volume 131

**VOL. 131 NOS. 1, 2**

**15 MARCH 1995**

### **Disease Parasites and Predators**

- Entry and sequential distribution of an aquatic birnavirus in turbot (*Scophthalmus maximus*)  
B. Novoa (Vigo, Spain), J.L. Barja (Santiago de Compostela, Spain) and A. Figueras (Vigo, Spain) ..... 1
- Interactions between peritoneal exudate cells (PECs) of gilthead seabream (*Sparus aurata*) and *Pasteurella piscicida*. A morphological study  
M. Noya, B. Magariños and J. Lamas (Santiago de Compostela, Spain) ..... 11
- Distribution and elimination of [<sup>14</sup>C] sarafloxacin hydrochloride from tissues of juvenile channel catfish (*Ictalurus punctatus*)  
W.H. Gingerich, J.R. Meinertz, V.K. Dawson, J.E. Gofus, L.J. Delaney (La Crosse, WI, USA) and P.R. Bunnell (North Chicago, IL, USA) ..... 23

### **Genetics and Breeding**

- Survival potential and chromosomes of progeny of triploid and pentaploid females in the loach, *Misgurnus anguillicaudatus*  
K. Matsubara, K. Arai and R. Suzuki (Higashi-Hiroshima, Japan) ..... 37

### **Husbandry and Management**

- Activity and feeding behaviour of Atlantic cod (*Gadus morhua*) in sea pens  
D.S. Clark (St. Andrews, N.B., Canada), J.A. Brown, S.J. Goddard and J. Moir (St. John's, Nfld., Canada) ..... 49
- Effect of sediment on growth and acute ammonia toxicity for the school prawn, *Metapenaeus macleayi* (Haswell)  
G.L. Allan and G.B. Maguire (Salamander Bay, NSW, Australia) ..... 59
- The use of cleaner-fish to control sea lice on two Irish salmon (*Salmo salar*) farms with particular reference to wrasse behaviour in salmon cages  
S. Deady, S.J.A. Varian and J.M. Fives (Galway, Ireland) ..... 73
- Use of the golden apple snail, cassava, and maize as feeds for the tiger shrimp, *Penaeus monodon*, in ponds  
I. Bombeo-Tuburan (Iloilo, Philippines), S. Fukumoto (Kagoshima City, Japan) and E.M. Rodriguez (Iloilo, Philippines) ..... 91
- Fish feed as a source of oxytetracycline-resistant bacteria in the sediments under fish farms  
J. Kerry, M. Hiney, R. Coyne, S. NicGabhainn, D. Gilroy, D. Cazabon and P. Smith (Galway, Ireland) ..... 101

### **Nutrition**

- Changes in the amino acid pool during embryonic development of cultured and wild Atlantic salmon (*Salmo salar*)  
R.K. Srivastava, J.A. Brown and F. Shahidi (St. John's, NF, Canada) ..... 115

- Effect of dietary protein to energy ratios on growth, survival, and body composition of juvenile Asian seabass, *Lates calcarifer*  
M.R. Catacutan and R.M. Coloso (Iloilo City, Philippines) ..... 125

### Physiology and Endocrinology

- The duration of the interval associated with successful inflation of the swimbladder in larval striped bass (*Morone saxatilis*)  
H.C. Bailey and S.I. Doroshov (Davis, CA, USA) ..... 135
- The production of functional sex-reversed male rainbow trout with 17 $\alpha$ -methyltestosterone and 11 $\beta$ -hydroxyandrostenedione  
G. Feist, C.-G. Yeoh, M.S. Fitzpatrick (Corvallis, OR, USA) and C.B. Schreck (Corvallis, OR, USA) ..... 145

## VOL. 131 NOS. 3, 4

1 APRIL 1995

### Diseases

- Sensitivity of the Pacific white shrimp, *Penaeus vannamei*, to aflatoxin B<sub>1</sub>  
H.T. Ostrowski-Meissner, B.R. LeaMaster, E.O. Duerr and W.A. Walsh (Honolulu, HI, USA) ..... 155
- Inactivation of *Renibacterium salmoninarum* by free chlorine  
R.J. Pascho, M.L. Landolt and J.E. Ongerth (Seattle, WA, USA) ..... 165

### Genetics and Breeding

- Survival and growth of all-female diploid and triploid rainbow trout (*Oncorhynchus mykiss*) reared at chronic high temperature  
E.J. Ojolick (Halifax, N.S., Canada), R. Cusack (Pictou, N.S., Canada), T.J. Benfey (Fredericton, N.B., Canada) and S.R. Kerr (Dartmouth, N.S., Canada) ..... 177
- Evaluation of growing methods for use in a Sydney rock oyster *Saccostrea commercialis* (Iredale and Roughley) selective breeding program  
I.R. Smith (Taylors Beach, NSW, Australia), A.K. Sheridan (Cronulla, NSW, Australia) and J.A. Nell (Taylors Beach, NSW, Australia) ..... 189
- Effects of domestication on genetic variability, fertility, survival and growth rate in a tropical siluriform: *Heterobranchus longifilis* Valenciennes 1840  
J.-F. Agnès, Z.J. Otémé and S. Gilles (Abidjan, Ivory Coast) ..... 197

### Husbandry and Management

- Effects of temperature on mean molt interval, molting and mortality of red swamp crawfish (*Procambarus clarkii*)  
S. Chen, J. Wu and R.F. Malone (Baton Rouge, LA, USA) ..... 205
- Effect of combined copper, zinc, chromium and selenium by orthogonal array design on alkaline phosphatase activity in liver of the red sea bream, *Chrysophrys major*  
W.G. Lan, M.K. Wong, N. Chen and Y.M. Sin (Singapore, Singapore) ..... 219
- Induction of anaesthesia in the commercial scallop, *Pecten fumatus* Reeve  
M.P. Heasman, W.A. O'Connor and A.W.J. Frazer (Salamander Bay, NSW, Australia) ..... 231

### Nutrition

- Feeding schedule for *Penaeus setiferus* larvae based on diatoms (*Chaetoceros ceratosporum*), flagellates (*Tetraselmis chuii*) and *Artemia* nauplii  
P.P. Gallardo (México D.F., Mexico), E. Alfonso (La Habana, Cuba), G. Gaxiola, L.A. Soto and C. Rosas (México D.F., Mexico) ..... 239
- Domoic acid in rainbow trout (*Oncorhynchus mykiss*) feeds  
R.W. Hardy, T.M. Scott, C.L. Hatfield, H.J. Barnett, E.J. Gauglitz Jr., J.C. Wekell and M.W. Eklund (Seattle, WA, USA) ..... 253

Assessment of undehydrated and dehydrated rapeseed protein concentrate as sources of dietary protein for juvenile rainbow trout ( <i>Oncorhynchus mykiss</i> ) Z. Teskeredžić (Zagreb, Croatia), D.A. Higgs, B.S. Dosanjh, J.R. McBride (West Vancouver, B.C., Canada), R.W. Hardy (Seattle, WA, USA), R.M. Beames (Vancouver, B.C., Canada), J.D. Jones (Zagreb, Croatia), M. Simell, T. Vaara and R.B. Bridges (Rajamäki, Finland) .....	261
Dietary requirement for lysine by juvenile <i>Penaeus vannamei</i> using intact and free amino acid sources J.M. Fox, A.L. Lawrence (Port Aransas, Texas, USA) and E. Li-Chan (Vancouver, B.C., Canada) ....	279
Effects of dietary protein and lipid levels on growth and body composition of sunshine bass ( <i>Morone chrysops</i> × <i>M. saxatilis</i> ) reared in cages C.D. Webster, L.G. Tiu, J.H. Tidwell (Frankfort, KY, USA), P.V. Wyk (Louisville, KY, USA) and R.D. Howerton (Jamestown, KY, USA) .....	291
Essentiality of dietary phospholipids for carp ( <i>Cyprinus carpio</i> L.) larvae I. Geurden (Ghent, Belgium), J. Radünz-Neto and P. Bergot (Saint-Pée-sur-Nivelle, France) .....	303
Effect of food supply on oyster spatfall I. Laing (Conwy, Gwynedd, UK) .....	315
<b>Contents of Aquaculture, Volume 131 .....</b>	<b>325</b>